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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,793	01/17/2002	Timothy David Kaiser	SPC 0397 PA	1540

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Killworth, Gottman, Hagan & Schaeff, L.L.P.
Suite 500
One Dayton Centre
Dayton, OH 45402-2023

EXAMINER

GONZALEZ, MADELINE

ART UNIT PAPER NUMBER

2859

DATE MAILED: 08/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/051,793

Applicant(s)

KAISER, TIMOTHY DAVID

Examiner

Madeline Gonzalez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 2-25,30 and 31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,26-29,32 and 33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. The election of species requirement stated in the last Office Action (Paper No. 3) is hereby repeated and thus made FINAL.

2. Applicant's election without traverse of Species C (Fig. 4) in Paper No. 4 is acknowledged.

3. Applicant stated that claims 1-12, 21, 22 and 26-33 read on Species C. The Examiner has considered this response and found that only claims 1, 26-29, 32 and 33 read on Species C. Accordingly, claims 2-25, 30 and 31 are withdrawn from further consideration as being directed to a non-elected species.

Claim Objections

4. Claims 26 and 27 are objected to because of the following informalities:

- a) Claim 26 includes the limitation "said light detector" in line 7. There is insufficient antecedent basis for this limitation in the claim.

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- b) Claim 27: --the-- should be added after “to” in line 2.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Nakase et al. (U.S. 5,578,815) [hereinafter Nakase].

Nakase discloses a bias circuit, as shown in Fig. 9, having:

- a diode APD1 (light detector) arranged to provide an output signal that varies based upon the intensity of light measured thereby;
- a constant bias circuit arranged to supply a reverse voltage across said diode APD1 (light detector), said reverse voltage remaining substantially constant irrespective of said output signal;

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- a resistor R31 (signal filter) coupled to said diode APD1 (light detector) arranged to filter said output signal; and
- an amplifier 140 arranged to amplify said output signal filtered by said resistor R31 (signal filter).

7. Claims 1 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Moses, Jr. (U.S. 5,296,697).

Moses, Jr. discloses a detection circuit, as shown in Fig. 4, having:

- a diode D1 (light detector) arranged to provide an output signal that varies based upon the intensity of light measured thereby;
- a constant bias circuit arranged to supply a reverse voltage across said diode D1 (light detector), said reverse voltage remaining substantially constant irrespective of said output signal;
- a capacitor C2 (signal filter) coupled to said diode D1 (light detector) arranged to filter said output signal; and
- an amplifier IC1 arranged to amplify said output signal filtered by said capacitor C2 (signal filter).

8. Claims 26 and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Kiyota (U.S. 6,426,494).

Kiyota discloses a signal detector, as shown in Fig. 2, having:

- a photodiode 11 (photocell) arranged to provide an output signal that varies based upon the intensity of light measured thereby;
- a constant bias circuit 21 arranged to supply a reverse voltage across said photodiode 11 (photocell), said reverse voltage remaining substantially constant irrespective of said output signal;
- an amplifier 31 arranged to amplify said output signal of said photodiode 11 (photocell); and
- a plurality of photodiodes 101, 102 (photocells), as shown in Fig. 4, coupled to a constant bias circuit 501.

9. Claims 26-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakase (U.S. 5,578,815).

Nakase discloses a bias circuit, as shown in Fig. 9, having:

- a diode APD1 (photocell) arranged to provide an output signal that varies based upon the intensity of light measured thereby;

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- a constant bias circuit arranged to supply a reverse voltage across said diode APD1 (photocell), said reverse voltage remaining substantially constant irrespective of said output signal;
- an amplifier 140 arranged to amplify said output signal of said diode APD1 (photocell);
- a plurality of diodes APD1, APD2₁ (photocells), coupled to the constant bias circuit; and
- a first filter R31 coupled to said diode APD1 (photocell), said first filter implementing a low pass filter.

10. Claims 26, 29, 32 and 33 rejected under 35 U.S.C. 102(b) as being anticipated by Ohtomo (U.S. 4,292,514).

Ohtomo discloses an apparatus, as shown in Fig. 1, having:

- a photodiode PD (photocell) arranged to provide an output signal that varies based upon the intensity of light measured thereby;
- a constant bias circuit arranged to supply a reverse voltage across said photodiode PD (photocell), said reverse voltage remaining substantially constant irrespective of said output signal;
- an amplifier 2 arranged to amplify said output signal of said photodiode PD (photocell);

- a first filter coupled to said photodiode PD (photocell), said first filter implementing a bandpass filter;
- a filter coupled between said photodiode PD (photocell) and said amplifier 2 configured to filter said output signal to attenuate frequencies outside a range of frequencies defining a signal of interest and substantially allow said signal of interest to couple to said amplifier 2;
- a first filter R coupled to said photodiode PD (photocell), said first filter having a frequency response that notches at an expected frequency range of laser light intended to be detected by said photodiode PD (photocell); and
- a second filter coupled between said photodiode PD (photocell) and said amplifier 2 configured to filter said output signal to attenuate frequencies below said expected frequency range of laser light.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Deschamps et al. ('305) discloses a circuit having a constant bias voltage source. Thompson et al ('196) discloses a detection circuit. Yoshizawa and Satoh disclose signal receiving circuits.

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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Madeline Gonzalez whose telephone number is (703) 308-7004. The examiner can normally be reached on Monday-Friday (8:00-5:30), alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F.F. Gutierrez can be reached on (703) 308-3875. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 305-3431 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

MG
August 2, 2003



Diego F.F. Gutierrez
Supervisory Patent Examiner
Technology Center 2800